REMARKS

Claims 1-19 are all the claims pending in the application. By this Amendment, Applicant amends claim 12 to further clarify the invention. In addition, Applicant adds claims 13-19. Claims 13-19 are clearly supported throughout the specification, *e.g.*, pages 3 and 11-13 of the specification.

Preliminary Matters

Applicant thanks the Examiner for initialing the references listed on form PTO/SB/08 A & B filed with the Information Disclosure Statement on October 15, 2003. Applicant also thanks the Examiner for accepting the drawings filed on October 15, 2003.

The Examiner has not, however, acknowledged the claim to foreign priority as well as the receipt of the certified copy of the priority document filed on October 15, 2003. Applicant respectfully requests the Examiner to acknowledge the claim to foreign priority as well as the receipt of the certified copy of the priority document in the next Office Communication.

Claims Rejections under 35 U.S.C. § 102

Claims 1-12 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,210,704 to Husseiny (hereinafter "Husseiny"). Applicant respectfully traverses the grounds of rejection in view of the following remarks.

Of the rejected claims, only claims 1 and 12 are independent. First, independent claim 1, among a number of unique features, recites: "defining at least one criterion in accordance with influence quantities that are accessible by a control system of the technical installation ...

wherein, the criterion is implemented in a function block, which is, in addition to a control program, stored in a programmable controller."

By way of an explanatory example only, in a non-limiting embodiment, the technical process is an automated process controlled by a control program, which is stored in a programmable controller. That is, in the exemplary embodiment, the failure predictions are made using a software program, which is installed on the programmable controller and which communicates with the control program. In the exemplary embodiment, no additional hardware is required. Values supplied to the control program are also used to provide failure predictions. This passage is not intended to limit the scope of the claims in any way.

The Examiner alleges that col. 8, lines 33 to 67 and col. 9, lines 56 to 67 of Husseiny teach the above noted unique features of claim 1 (see additionally pages 2 and 3 of the Office Action). Applicant respectfully disagrees. Applicant has carefully studied the Husseiny's teachings and respectfully submits that Husseiny fails to teach or suggest defining at least one criterion in accordance with influence quantities that are accessible by a control system of the technical installation... wherein, the criterion is implemented in a function block, which is, in addition to a control program, stored in a programmable controller, as recited in claim 1.

To be an anticipation, the reference must teach every element and recitation of the Applicant's claims. Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the reference must clearly and unequivocally disclose every element and recitation of the claimed invention.

In general, Husseiny relates to a wearout monitor for failure prognostics, which is a prognosis tool to predict incipient failure in rotating mechanical equipment (see *Abstract* and col. 1, lines 9 to 24). In particular, Husseiny addresses a method to provide monitoring wear or defect growth in rotating mechanical components using stochastic analysis which thus allows detection of degradation or incipient failure long before the component fails and which provides a warning of the remaining time to failure (col. 4, lines 15 to 22). A wearout monitor, as taught by Husseiny, includes hardware components and may be adapted to any specific applications (Fig. 9; col. 13, lines 65 to 66, col. 14, line 44 to col. 15, line 10; Table 1, col. 8, line 50 to col. 9, line 48, and Table 2, col. 9, line 55 to col. 10, line 6).

The Examiner alleges that the passage on col. 8, lines 33 to 67 of Husseiny discloses "defining at least one criterion in accordance with influence quantities that are accessible by a control system of the technical installation," (see page 2 of the Office Action). Col. 8, lines 33 to 48 of Husseiny recites:

> The wearout monitor-P also provides a means of identification of parameters associated with aging of a specific equipment through the effects of performance such equipment on its environment. Examples of such effects are:
>
> the impact of crud buildup on steam turbine blades which causes lack of synchronization in the rotation and may eventually lead to a disastrous breakdown;
>
> the effect of loss of material, or material buildup, on pump impellers, leading to excessive power consumption; or
>
> sudden rise in the lubricant

> temperature of bearings.
>
> Table I … is a list of the hardware components of wearout monitor-P which are usable in a preferred embodiment of the present invention…

Col. 8, lines 49 to 67 of Husseiny provides the beginning of Table 1 listing some of the hardware components. In this passage, however, Husseiny only teaches that parameters associated with aging of specific equipment through the effects of performance of this equipment and its environment is identified. Husseiny does not teach or suggest that the parameters are identified in accordance with the control system of the technical installation. In fact, Husseiny teaches that first, selection of the critical components to the operation of the system must be made and that it is these identified critical components that are examined and analyzed (Fig. 8; col. 13, line 65 to col. 14, line 9). Husseiny discloses studying the system design and placing sensors at the critical points in the system (Figs. 8 and 9; col. 9, lines 10 to 15, lines 44 to 52).

In other words, in Husseiny's system, the parameters are identified in accordance with critical components in the system and not in accordance with the control system of the technical installation. In fact, in Husseiny, the wearout monitor is an independent system not related to the control system of the technical installation process.

The Examiner also alleges that col. 9, lines 56 to 67 of Husseiny discloses "wherein, the criterion is implemented in a function block, which is, in addition to a control program, stored in a programmable controller," (see page 3 of the Office Action). Col. 9, lines 56 to 67 of Husseiny set forth the beginning of Table II, which lists ancillary hardware components for the wearout monitor P system. In particular, col. 9, lines 56 to 67 of Husseiny recites:

TABLE II

LIST OF ANCILLARY HARDWARE COMPONENTS

COMPONENTS	SPECIFICATIONS
rack mount kit	for HP 6944A multiprogrammer
interface card	HP 98633A for interface for multiprogrammer with HP series 200 microcomputer
interface cable	HP 1470C, 13.2 ft. to connect interface card to multiprogrammer
HP-IB interface	HP 27100A for HP 500 microcomputer
HP-IB extender	HP 98624A allows communication between HP 200 microcomputer and 14 HP-IB compatible instruments
multiplexer interface	HP 27130, 8-channel for HP 500 microcomputer

The relevance of this list of hardware components cited by the Examiner is not understood. To begin, this list does not include a programmable controller, nor does it include a control program. In fact, as disclosed by Husseiny the wearout monitor-P is a generic system and may be adapted to any specific applications (col. 13, lines 65 to 68). In other words, Husseiny's system controls particular technical equipment and is not tied to a particular technical process. Husseiny's system functions independently of the technical process, and as such the system of Husseiny does not depend on the control system or control program of the technological installation. That is, Husseiny is not related to an automated technical process, which ordinarily includes a programmable controller. In short, Husseiny does not teach or suggest a control program nor a control program and the criterion being stored in a programmable controller. It is simply not the focus of the Husseiny's monitoring system. Husseiny's system is independent of the technical process, as it creates its own inputs (identifies critical points and places the sensors there) and monitors the technical equipment independently using its own hardware and software, as explained in greater detail above.

Therefore, "defining at least one criterion in accordance with influence quantities that are accessible by a control system of the technical installation...wherein, the criterion is implemented in a function block, which is, in addition to a control program, stored in a programmable controller," as set forth in claim 1 is not disclosed by Husseiny. Husseiny lacks any teaching or suggestion defining the criterion in accordance with influence quantities accessible by a control system of the technical installation. Moreover, Husseiny lacks any disclosure of having the control program and the criterion being stored in a programmable controller. For at least these reasons, Applicant respectfully submits that claim 1 is patentably distinguishable from Husseiny. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claim 1. Claims 2-11 are patentable at least by virtue of their dependency on claim 1.

In addition, dependent claim 2 recites: "the defined time intervals at which the criterion is monitored are less than one second each." The Examiner alleges that col. 9, lines 32 to 46 of Husseiny discloses this defined time interval (see page 3 of the Office Action). Col. 9, lines 32 to 46 of Husseiny, however, only disclose a hardware component "multiprogrammer," which performs data conversion and transfer 180,000 readings per second. Clearly, this passage does not teach or suggest the defined time intervals being less than one second. The Examiner further cites "Sample Interval Selector" illustrated in Fig. 3 of Husseiny (see page 3 of the Office Action). With respect to "Sample Interval Selector" 480, however, Husseiny teaches only that filleted, digitized signals 428 are sampled by a data sampler 430 according to a selected sample interval selected by an interval selector 480 (col. 10, lines 62 to 65). Husseiny further teaches that a test is performed to determine if the sample interval is adequate and the interval may be adjusted accordingly (col. 11, lines 36 to 44). Husseiny, however, does not teach or suggest the time intervals being less than one second each. For at least this additional reason, Applicant respectfully requests the Examiner to withdraw this rejection of claim 2.

Next, independent claim 12, among a number of unique features, recites: "wherein the actual values consist only of values supplied to a control program controlling the technical installation process."

That is, claim 12 defines the measured values being the values supplied to the control program, which controls the technical process. Husseiny, on the other hand, defines the critical points for the equipment being monitored and places sensors in these defined points, as explained in greater detail above (col. 13, line 65 to col. 14, line 52). That is, Husseiny's system is an independent, separate system, which consists of its own individual hardware and software. In other words, the monitoring system of Husseiny is not linked to a control program, where the actual values consist only of values supplied to a control program controlling the technical installation process.

For at least this reason, Applicant respectfully submits that claim 12 is patentably distinguishable from Husseiny. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claim 12.

New Claims

In order to provide more varied protection, Applicant adds claims 13-19. Claims 13-19 are patentable at least by virtue of their dependency on claim 1 or claim 12.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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